nmra magazine

February 2013

nmra.org

NMRA 2013
Peachtree Express
nmra2013.org

From Concept to Publication Pt. 2

et & Southern Railroad

ng an ACF Hopper

a Swiss Convention

Window Openings

ATHEARN® TRAINS IN MINIATURE

Athearn 2013 Edition 1 Catalog

A REFERENCE GUIDE LIKE NO OTHER

[illegible]

NEW PRODUCTS

[illegible]

[illegible]

[illegible]

DETAILS, DETAILS, DETAILS

[illegible]

BRANDS YOU TRUST

[illegible]

HORIZON | **VISIT** | **CLICK** | **CALL**

[illegible]

The long-awaited reprint has finally arrived!

RAILWAY TRACK AND MAINTENANCE
A Manual of Maintenance-of-Way and Structures

[illegible] as Railway Track and Trackwork, the [illegible] Edition of this classic MOW guide was reprinted by the NMRA in 2003 and quickly sold out. This reprint has been eagerly awaited ever since.

- A wealth of prototype information
- A timeless guide for modelers of all eras
- Dozens of detailed illustrations, cross sections, and engineering diagrams
- Contemporary introduction to this classic by noted modeler Tony [illegible]
- Printed on high quality glossy stock
- Over 450 pages in 6"x9" hard cover format with dust jacket
- Same low price as the 2003 reprint

$36.00 NMRA Members

$50.00 Non-NMRA Members

To Order: Online: www.nmra.org. By mail: 4121 Cromwell Road, Chattanooga, TN 37421. By phone: (423) 892-2846. By fax: (423) 899-4869. U.S. shipping & handling: [illegible]; all others call. TN residents add [illegible] sales tax. U.S. funds only. Visa, MasterCard, American Express & Discover.

nmra.org

Features

[illegible]

From Concept to Publication

[illegible]

[illegible]

Piedmont & Southern Railroad

Charlie Aycock & Peter Youngblood, MMR

[illegible]

ACF 3560 Center Flow Hoppers

[illegible]

[illegible]

Small Ore Tipple

[illegible], MMR

5 **Observation Car (editorial)**
Stephen M. Priest, NMRA editor

6 **President's Car (editorial)**
NMRA President, Charlie Getz

34 **Attending a Swiss Convention**
[illegible]

38 **Window Cutting Made Easier**
[illegible], MMR

40 **Division Business Car**
The NMRA @ Work [illegible], MMR

44 **Research & Test Car**
Product Review: Woodland Scenics [illegible]

48 **Display Car**
Product Announcements [illegible]

50 **NMRA Bulletin**
News from National and Achievement Program

52 **Club Car**
Upcoming events

61 **Library Car**
Book and Video Reviews

62 **History in a Click**
From the NMRA Online Archives

63 **National Retailer Listing and Advertiser Index**

On The Cover

[illegible]

The Election Issue

Observation Car

[illegible]

[illegible]

[illegible] — [illegible]

---

nmra magazine

Official Publication of the National Model Railroad Association

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

January [illegible]

PUBLICATIONS STAFF

[illegible]

WHITERIVER PRODUCTIONS

[illegible]

nmra magazine

The NMRA advances the worldwide scale model railroading community through education and standards as well as advocacy and fellowship.

Increasing Membership

President's Car

NMRA President Charlie Getz

In my last column, I challenged you [illegible]

[illegible]

VOTE, VOTE, VOTE! There's a ballot inside.

and give back to the hobby that has given you so much.

When I talk to people about the NMRA, I mention the not-for-profit nature of our organization and all the good we have done for model railroading over the years. I then ask them if they contribute to organizations such as the Red Cross, Leukemia Society, or Goodwill Industries. More often than not, the answer is yes. I then ask them why they do so, and the answer is almost always that they want to support the good work done by those organizations. When one contributes to the Red Cross, they certainly do not expect some "stuff" back for their contribution! In fact, receiving benefits from the Red Cross is normally a very bad sign – [illegible]. Similarly, supporting Goodwill Industries and their outstanding work does not mean you anticipate receiving any particular items from Goodwill Industries. Yet, with the NMRA, that's the expectation: by becoming a member, you will receive more than you paid in dues or membership fees.

I want to challenge that assumption and ask why the NMRA should differ from other non-profit organizations that are supported by our hobbyists. In other words, why support other organizations that have nothing to do with a hobby you enjoy yet not support one that does?

In other words, perhaps we should appeal to the "angels of our better nature" rather than trying to justify all the programs (and benefits) as being worthy of the membership fee. Granted it is a hard sell, but perhaps not any harder than trying to sell the "fellowship" component of membership that so many of our members identify as one of the great benefits of the NMRA.

Fortunately, the NMRA is blessed with many outstanding volunteers who are very good at signing up members. Our problem is not attracting new members, but rather retaining existing ones. I fear that many do not continue their membership because they do not see "value" in doing so. Perhaps thinking of NMRA in a different light will help. These are just my thoughts; I always welcome yours.

In other news, this month marks the mid-year meeting of the Board of Directors, which will be held in Atlanta, Georgia, the site of the upcoming National Convention. Our conventions promise to be an extraordinary experience, and this year's [illegible] is [illegible]. I hope that you are planning to attend — it is not too early to register. Many tours, including some layout tours, will no doubt sell out. I know that SER President and National Convention Chairman [illegible] and his crew have a very special week planned for all of us, and I, for one, look forward to attending. Look inside this issue for [illegible] great tours and activities available.

Conventions such as these offer attendees a chance to improve skills as a model railroader, interact with other like-minded hobbyists, and visit some inspiring layouts. Atlanta is a fantastic city with many attractions for the entire family. It is actually the busiest airport in the United States, which means that getting to and from [illegible] should not be a problem. Atlanta is a [illegible] in the past. I will report on the Board's actions in upcoming issues and as exciting developments happen. I will continue to keep you updated, so please stay tuned.

Charlie

NMRA MEMBERSHIP

[illegible]

NATIONAL OFFICERS

[illegible]

BOARD OF DIRECTORS

[illegible]

KADEE® RC Uncouple Anywhere*

Open & Close Couplers, and Operate Built in Relay with a Push of a Button

NOW SHIPPING

Truly Wireless
Additional Auxiliary Features
No Track Signal Needed
Stand-alone System

Features:
[illegible]

G-Scale Now Available
#1-Scale Soon to be Released.

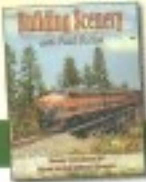
Available Through Your Authorized Kadee® Dealer.

VISIT FOR MORE INFORMATION

www.remoteuncoupling.com

[illegible]

Take your scenery to the next level!



Ever wonder how to build that beautiful scenery you see in the pages of Railroad Model Craftsman? Expert scenery builder Paul Scoles shares his techniques, tools and methods, taking you through the process of scenery building step by step. Enhanced with additional photos and text, this book puts years of scenery building experience right into your hands!

BUILDING SCENERY WITH PAUL SCOLES

$19.95

[illegible]

Carstens

[illegible]

Installation

- Brass & Plastic Engines
- Most Scales
and Gauges

AZATRAX

Stay on Track

Don't miss your opportunity to

Look inside for a ballot and return it today!

WANTED COLLECTIONS

[illegible]
@ 1-877-[illegible]

New N & Z Scale Brewery Reefer Series!

COMING
MAY 2013
All Cars - $34.95

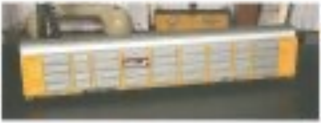
FALSTAFF
LEMP
MICRO-TRAINS LINE
N
Z

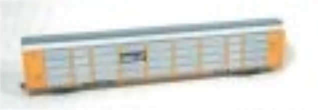
From Concept to Publication

Part 2: Photo Composition and Tips

[illegible]

In last month's installment, we studied the basic mechanics of model photography. Let's now turn to the [illegible] for composing great photographs. Unlike many [illegible] may have photographed in the past, model photography allows us to control the environment by manipulating various elements such as subject placement, staging, and lighting. The first rule of good composition is simplicity — remove excess distractions from the subject, including background objects, which may include the surface on which the model is photographed. After all, how many of us have seen that ubiquitous "snapshot" of a model sitting on [illegible] while its realism is suddenly marred by the grain of the table's woodwork?





Both Right: These two photos illustrate the [illegible]

While we don't need anything quite the length of a professional portrait studio's backdrop, we do need something [illegible] than a tabletop with an adjacent wall. We shouldn't use expensive portrait-style backdrops, nor would I recommend them — the "loop" wears throughout the fabric [illegible] after a bit. Instead, construct a basic studio from several sheets of poster board placed on the table top and hung from or stood up against the wall to form a clean surface and backdrop. Yet another option that enables a larger seamless backdrop is to use a solid-colored fabric that has a tight, plain texture and no creases. Two pieces of matching [illegible] fabric have served as my "studio" for years. One item acts as a table cover and the other is a removable backdrop that hangs from the layout fascia, hiding the layout and shelving while projects are being photographed.

Let's now look at the second rule of composition: contrast. Our goal is for the subject to stand out against the background. I recommend keeping both a light and dark background on hand, using the one that contrasts with the item being photographed. For example, when photographing a project that uses light-colored stones (e.g., white), use a dark-colored background (e.g., black) for maximum contrast. Contrast prevents the subject from blending into the background.

Finally, let's explore the most important component of the basic studio environment: lighting. While you can buy costly lighting packages designed for serious photographers, the same can often be accomplished using inexpensive clip-on style lights with incandescent bulbs or even small portable lighting systems with halogen lighting commonly found in hardware stores.

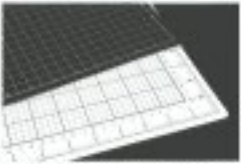
Whatever lighting style you choose, there are several rules to follow. The first is safety — all lights get very hot and have the potential to warp plastic models. Lights also present [illegible] hazard, so they should be kept a safe distance from any flammable materials, the model and even clothing included.

The second rule of lighting is not to aim directly at the subject. I've seen small desktop studios for professional products where the photographer aimed the lighting away from you. Metallic-colored umbrellas then reflected the light back at you. This roundabout way of lighting reduces [illegible] highlights and shadows referred to as "blooming." The "blooming" process is similar to what we see when using a flash. One low-budget solution [illegible] no additional equipment is to "bounce" the light onto the subject by aiming it toward or above the model, allowing the light to soften and provide an even overall lighting. Once the overall lighting has been established, it can then be tweaked to lighten dark areas and eliminate shadows by repositioning, adding additional lighting, or by directing light to a specific area on the model using a reflector made from white poster board or [illegible].

The third rule of lighting, and a requirement of layout photography, is to

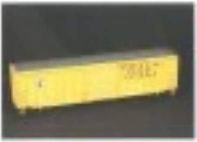
[illegible]

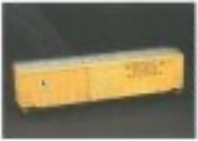
[illegible]



[illegible]

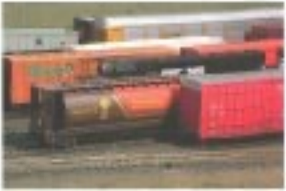
[illegible]

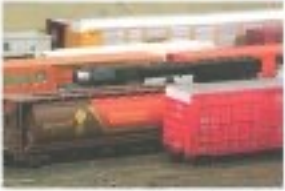




Both Above: These two photos illustrate direct versus indirect lighting. In the photo on the top, the lights are aimed directly at the model, leaving a washed-out effect. The photo on the bottom had the light bounced, making the lighting even without bleaching out the color or obscuring details.

Both Right: These photos illustrate good and bad shadows in the context of layout photography. In the first photo, the lights were placed in different positions, creating inconsistent shadows on the benches and around hoppers. In the second photo, the lights were all faced into the scene at a 45-degree angle, creating realistic shadows and a steadier, appealing effect.





Above: A simple reflector can be made from a sheet of white styrene. Once used to aim light into dark areas it's needed, such as the underframe and trucks.

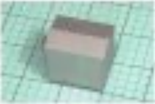
try to keep all the lighting facing the same direction. In simple terms, lighting creates shadows, and we want all the shadows to face the same way. In instructional-style photography, you will find times when cross lighting may be necessary, and in this instance the additional shadows will only provide a minor distraction. On the other hand, shadows facing multiple directions on a layout can immediately destroy the photo.

Lastly, remember that White Balance setting on the camera! Don't forget to match the camera settings to the temperature of your lighting to avoid viewing the world in red and blue!

Now that we have mastered the camera and built our homemade studio, let's dive in and set up each photo. Last month, I introduced the operation of the [illegible] models. Keeping that audience in mind, we can begin documenting each step of the project, creating a pictorial in which the photos tell the story.

[illegible]

[illegible]



[illegible]

[illegible]

While writing up each photo, we must first approach the photography (and subsequent [illegible]) of an article as if your audience has no knowledge of the subject. While it's easy for us to assume that everyone has the same modeling approach and subject familiarity, what we do in our hobby is wide ranging, both in interests and skill levels. This means we must document each step in order (including illustrations where necessary) without eliminating steps or jumping ahead, ensuring the reader will be able to follow the work.

Second, we must understand how to maintain a balance between documenting each step and keeping a reasonable number of photographs. Even a simple project can generate dozens of photographs; the effective method for reducing the number of photos is to combine multiple simple steps

Right: One of the most [illegible] tools a model photographer can have is a simple third hand device that can be used to hold tools, pointers, or even model parts while taking a photo.

into a single photograph whenever possible. For example, a piece on detail-painting can use one photo to show all the details applied to an area of the model, rather than using an individual photo for each detail.

The third concept of how-to composition is clarity. One method to increase clarity is to minimize the area you are taking, removing as much of the remaining model from the photo as possible. A second method is to show smaller [illegible] in a common object of [illegible] such as a [illegible] against or adjacent to the work being photographed. A third method is to use a "pointer" — a sharpened dowel tip, painted toothpick, or other tool held against the model to direct the viewer to an exact location or part.

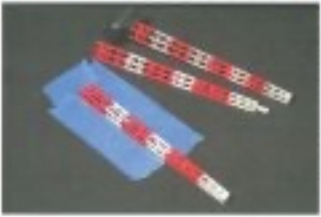
One tool I have found invaluable for model photography is an inexpensive "third hand tool" purchased at a discount hardware store. Consisting of a base with a rod arm and alligator clips, this device is excellent for holding all sorts of photo props such as pointers, hobby screwdrivers, and X-ACTO knives, most of which can't be held by hand during the long exposure times required in model photography.

Finally, another method especially useful for kitbashing projects to increase clarity is through comparison. Whenever possible (and practical), I try to obtain a second model that will remain unaltered. This allows me to show the before and after, placing the models side by side in the same photograph. Even without a second model, we can still create before and after images. However, this requires setting up the same shot twice with the exact same positioning. While this may sound impossible, once the before photo is taken, mark the location of the model's edges with blue painter's tape. It can now be removed and returned to the exact location using the tape as guidelines [illegible] pieces [illegible] the after photo.

Keeping these ideas in mind we can now set up our shots and start making our photographs using bracketing — a requirement for publication work and generally good idea due to the "estimates" of their camera's electronics. Have you ever viewed a photo that looked fine on the camera's LCD screen but once it was downloaded, it was too dark or too light? Bracketing is simply taking the same photo multiple times, each with different exposure times, ensuring we are left with a quality usable photo.

Many digital cameras offer bracketing as a built-in option, automatically creating one exposure on each side of the light-meter's [illegible] made, however, my personal [illegible]

Below: [illegible]



Below: When a second model is not available, we can photograph before and after photos with the same model; however, each photo group must be identically composed. Marking the edges or outline of the model with tape [illegible] the model to be removed and returned to the same location.

Above, left: This group of three photos illustrates the concept of bracketing. The first photo is underexposed, the second photo is properly exposed and the third photo is overexposed. By using the bracketing method we are generally assured of at least one usable photo.

overexposure is to manually bracket your photos. I prefer to rotate in [illegible] increments each of the positive and negative side of the zero mark, which has always assured me a usable photograph — even in the oddest of conditions. Simply find the light meter [illegible] zero setting, then decrease the exposure time by several settings and take the first photo. Now incrementally increase the exposure time by one setting for each subsequent photo until the entire bracket is completed.

By now I imagine you may be saying "that's a lot to take in." Well, I can offer one more tip that will greatly simplify putting the final product together once all the photos have been taken: photo cards. We've all sat down and looked through an album or online gallery of images to remember a location or person to explain to someone else. Documenting a how-to project can present the same issue, except this time instead of names and places, it's specific steps, drill bit sizes and parts complete with part numbers. One easy way to remember the idea behind each photo is to write a brief description of the step you are showing along with the part numbers and any relevant tools used (such as No. 71 bit) on an index card, then photograph the index card with the model as a reference to that specific step. This will leave you with appropriate visual and parts list notes used to develop the corresponding article text.

So let's once again pause, this time to try several of the techniques I've described. Consider documenting a simple project such as assembling a Kadee coupler while experimenting with composition and lighting, then see how well the final result [illegible] how to assemble the article. ∎

Add Sander Antenna
EOT Antenna
[illegible]

Above: Paper, index card and pen [illegible] to [illegible] the [illegible] each photo [illegible] the model, providing a [illegible] that can be used [illegible].

Charles Aycock's Piedmont & Southern Railroad

Peachtree 2013 NMRA National Convention

[illegible] Charles Aycock, photos by [illegible] Youngblood, MMR

In 1987, after an absence of [illegible] years from the hobby, I built a 4x13-foot HO scale layout. When it was nearly completed, I realized I wanted a much bigger layout with broader radius curves. Relocation and procrastination [illegible] until several years later when [illegible] the 1993 NMRA National Convention in Atlanta prompted my return to action. I immediately began designing what became today's Piedmont & Southern Railroad, a fictional railroad where passenger trains powered by double-headed steam or lash-ups of multiple first generation diesels roll through lush scenery depicting northern Georgia in 1950 - 1951. The idea was to have multiple railroads join a single spot, [illegible] his favorite roads. The primary [illegible] is the Southern Railway with [illegible], but also includes [illegible] representing Seaboard Air Line, Atlantic Coast Line, Nashville, Chattanooga & St. Louis, and Louisville & Nashville railroads.

Layout construction

My requirements called for a fairly long mainline, broad curves, rural scenery extending to an artist backdrop, and several staged hidden trains ready to roll

Below. [illegible]

[illegible]

[illegible]

at a moment's notice. The latest [illegible] [illegible] constructing a six-track staging yard under the [illegible] benchwork with a capacity for holding 25 to 30 car trains plus double-headed front end power. The mainline winds across the hidden staging yard via two six-foot diameter helixes incorporated into the main bench work as opposed to being off-site in a "closet." This unique idea saved valuable space that could then be devoted to the modeling.

Benchwork, as an addition to the original layout, began in November 1994 for a [illegible] [illegible] benchwork. The entire track plan including [illegible] turnouts and [illegible] was drawn [illegible] of [illegible] placed [illegible] together on the benchwork. [illegible] "Lookin' out" [illegible] to the details [illegible]. Since the new trackage was integrated with the existing [illegible] could be [illegible] by one operator. [illegible] was installed and super elevations created for all curves with a [illegible] for operational reliability. I chose [illegible] Code 100 track and turnouts. [illegible] the [illegible] every [illegible] and my larger locomotives

[illegible]

[illegible]

Peachtree Express
[illegible]
[illegible]

and longer passenger [illegible] which ample clearance. After all the track was installed and tested, I painted the [illegible] with [illegible] Rail Brown and Roof Brown before applying ballast.

Scenery was constructed with layers of Styrofoam sheets glued together and contoured with a [illegible]. A layer of plaster cloth was applied over the Styrofoam followed by a layer of drywall "mud" compound which, afterwards, was painted with an earth tone of latex paint. To replicate north Georgia greenery, I used applications of various Woodland Scenics ground foam and textures fastened in place with diluted white glue. Trees were hand-made primarily from local [illegible] plants and [illegible] covered with different shades, textures and densities of ground foam. Rocks were either hand carved or made from molds. These were painted and [illegible] with colors matching the real thing.

Structures on the layout are mostly weathered or kitbashed plastic kits, which I painted and weathered to change their out-of-the-box appearance. Extra details, signage, foundations, downspouts, and shrubbery were added to further enhance realism and to blend them naturally into the scenes.

The backdrop was painted using acrylic and an airbrush for clouds and mountain profiles. I added [illegible] and details. [illegible] an artistic eye and hand adding highlights and shadows using a facial sponge and several colors, which really tied everything together and brought it to life.

[illegible] Railway [illegible] the pulpwood yard near [illegible] Georgia.

Period equipment

On this mountain era railroad, steam is still the "favored child." Every steam locomotive in the roster is [illegible] brass imports mechanically re-worked, weighted, and professionally painted [illegible] before being placed in service. Most diesels are [illegible] painted plastic engines although some are brass [illegible]. Again, most are retrofitted with Soundtraxx Tsu-Lite or Tsunami sound and improved [illegible]. All have many added details.

Rolling stock is a mix of kits appropriate to the era. These have been properly weighted and equipped with Kadee couplers. To eliminate any plastic shine, all are weathered, including the trucks, using an airbrush. A 24-car coal drag is particularly heavily weathered [illegible] on the point.

Train operations

From its inception, the intent of the Piedmont & Southern was to provide an attractive and believable setting in which to showcase trains. It does that superbly and, notwithstanding it was built single-handedly in [illegible] months, it's a most satisfying accomplishment. The P&S did make the "show-list" in 1995. Mr. Garrett will again be [illegible] during the 2013 "Peachtree Express" NMRA National Convention held in Atlanta. You can read all about it at www.nmra2013.org. I hope you'll come visit us and see what railroading looked like in North Georgia in the early 1950s. I look forward to seeing you! ■

[illegible]

Below: Charles Garrett, the owner and builder of the Piedmont & Southern Railroad.

Large Scale Trestle Kits

Black Bear Construction Co. Inc.

Old Town

by

Alpine Division Scale Models, L.L.C.

CRAFTSMAN
SCALE WOOD
STRUCTURE KITS

N, HO, & O SCALES

JV MODELS

www.jv-models.com

BECOME AN EMPIRE BUILDER!
MAINLINE
WWW.INTERNETTRAINS.com

Blair Line, LLC

Central Valley HO scale #1905 150' Truss Bridge Kit with walkways!

CENTRAL VALLEY MODEL WORKS

PEACHTREE EXPRESS

NMRA NATIONAL
CONVENTION
ATLANTA, GEORGIA

July 14 - 20, 2013

For information
and registration:
nmra2013.org

Milwaukee Road Transfer Caboose
arriving summer of 2013

Now Tooling in both HO and N Scale

Reserve yours today!
www.foxvalleymodels.com

Jelsma Graphics

www.jelsma.com

Modeling A Pair of Kerr-McGee ACF CENTER FLOW 3500 Hoppers

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

BILL OF MATERIALS

[illegible]
[illegible]

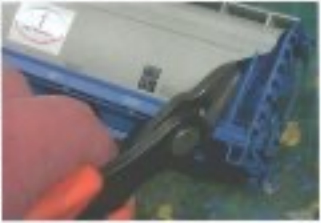
[illegible]
[illegible]

[illegible]
[illegible]

[illegible]
[illegible]

[illegible]
[illegible]

[illegible]
[illegible]

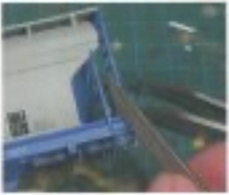


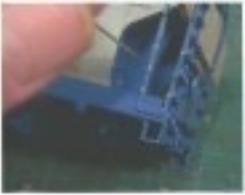
[illegible]

[illegible]

[illegible]

[illegible]





[illegible]

[illegible]

SUPER
POWER EASY

[illegible]

[illegible]

[illegible]

Right: [illegible]

Above: [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Above: [illegible]

Left: [illegible] being installed.

Below: [illegible]

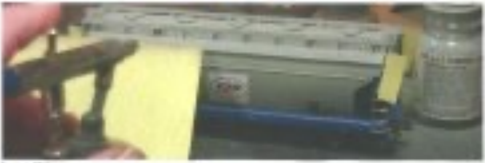
[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



AIM PRODUCTS
WEATHERING POWDER
EARTH
AIM PRODUCTS
WEATHERING POWDER
GRIMY BLACK

[illegible]

[illegible]

ACFX

[illegible]

LAND
LAND
LAND
LAND
WALTHERS
SOLVASET
ACFX

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

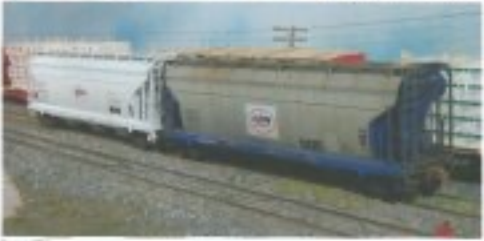
[illegible]

Above: [illegible]

Above: [illegible]

Left: [illegible]

Above: [illegible]



MBS

Manufacturers of quality scale model [illegible]

- Plastic 3D Sheets
- Landscaping & Scenery
- Fences, [illegible] & more
- Scales Z to G

Order online or download our [illegible] catalog and call:
1-877-[illegible] Toll Free
[illegible]

GET ENGINES THAT STALL?
by [illegible]

NEVERSTALL!

- [illegible]
- [illegible]
- [illegible]
- [illegible]

ONLY $19.99
[illegible]

[illegible]

SMOOTH TUBS
ATLASmodels.com

Looking for a signaling solution?
Look no further!

[illegible]

ARRIVING NOW AT YOUR LOCAL HOBBY STORE!

[illegible]

NEW MODEL!
O 42' COIL STEEL CARS

NEW PAINT SCHEMES & ROAD NUMBERS!
HO GP38-2 LOCOMOTIVES

NEW PAINT SCHEMES
N GP-38/40 LOCOMOTIVES

NEW PAINT SCHEMES & ROAD NUMBERS!
N [illegible]

OVERLAND
HOBBIES
www.overlandhobbies.com

[illegible]

ACME Corporation!
Modular kit can be built as a stand alone building or two background flats.
NEW HO & N KITS
www.custommodelrailroads.com

Seaboard Airline
ORANGE BLOSSOM SPECIAL
The Coach Yard
Committed to Excellence
www.thecoachyard.com

ESU
Just in time for Garden Railroading...
BIG Sound for BIG Trains!
LokSound V4.0 XL
- 12(!) Output Functions
- Plus 4 Servo Outputs!
- 3 Input Functions (Sound Triggering)
- Up to 5 Amp Current Draw!
- Integrated "PowerPack" for Smooth Operation

w/ Pin Connectors
w/ Screw Terminals
www.LokSound.com • 477 Knopp Drive Muncy, PA • 570-649-5048

A Swiss Convention

The Atlantic District Promotes the NMRA

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

American railroads in Europe, which I will always cherish.

The convention was slightly less busy on Sunday. I have to admit, we were a little grateful for that after the incredible response we had to the NMRA's booth the day before. Visitors showed plenty of interest in all things NMRA, especially the Achievement Program. The biggest thing I took from this whole experience is that modelers of American railroads are alive and kicking in Europe. People came there to share knowledge and skills with anyone who was willing to learn — nothing was too much trouble or effort. To be honest, I found this very refreshing and a little heartwarming.

Shown here are but a few of the pieces I took at the convention. (You can find more on the NMRA's Facebook page.) The pictures can never do this wonderful event justice. Warren and Richard's [illegible] deserve a huge congratulations and sincere appreciation after 50 years of service to the hobby. I owe a huge thank you to Warren [illegible] for inviting us, but also the other and the volunteers who came with me to throw their expenses to support the NMRA: [illegible] and the big man from Luxembourg, Patrick [illegible] (who supplied his modular display at the booth).

Thank you all! ■

Top: [illegible] steel works industrial diorama.

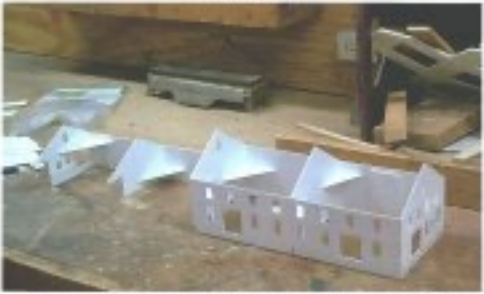
Above: "[illegible]" [illegible].

Below: [illegible]

Photos: [illegible]

Cutting Window and Door Openings Made a Lot Easier

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

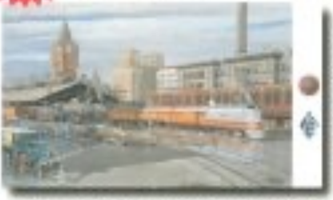
[illegible]

Don't miss your opportunity to

Look inside for a ballot and return it today!

Now just $89.95

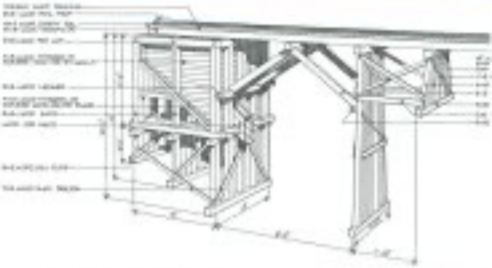
Own a piece of railroad history with the NMRA 75th Anniversary Commemorative painting.



In this specially commissioned painting, "Inaugural Journey of the Speedliner" renowned railroad artist Larry Fisher has captured a [illegible] the founding year of the NMRA. Now you can own a signed, numbered print of this magnificent painting for just $89.95* plus shipping and handling. Each print measures approximately 18" x 29", has the 75th Anniversary and Convention logos in the right margin, and is shrink wrapped on foam core.

To order yours, call NMRA Headquarters at 423-892-2846.

*[illegible]

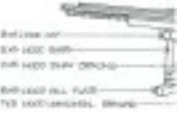


Small Ore Tipple

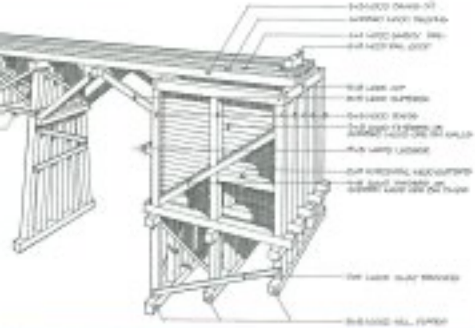
[illegible] Pat Harriman, MMR

This small ore tipple is fairly typical except for the approach to the ore bin, which is a little different. The [illegible] the railroad siding and the Bailey [illegible] Gold Company was too steep and abrupt to construct the tipple on the side of the [illegible] mine. It was necessary to build the tipple on the opposite side and bridge across the railroad siding to the ore tipple. The end result was a more interesting structure and one that [illegible] as well as a more traditionally placed ore tipple. The ore is moved from the mine site in small ore dump cars by hand along the 18-inch gauge track across the trestle to above the ore bin and then dumped into the top of the ore tipple. The ore then moves from the ore bin down the chute into waiting ore cars on the siding and is then taken to the mill for processing.

The entire structure is constructed of scribed wood siding and strip wood. All the building material should be pre-stained [illegible] before assembly. Despite its diminutive size, the number of pieces and assembly will test your patience. [illegible] castings should be painted gray and weathered [illegible] adding greatly to the model's appearance. [illegible] straight pin [illegible] connections [illegible] effective. Weathering with chalk [illegible] the [illegible] more effective. The weathering should be [illegible]



These model railroad structures now appearing in NMRA Bulletin are featured in a publication complete with dimensioned plans and elevations. *Early Wood Frame and Masonry Structures* is available for $24.99 plus $3 S&H from Pat Harriman, [illegible] Farley Lane, Overland Park KS 66212. Pat's first publication, *Early Wood Frame and Stone Structures* is still available for $24.99 plus $3 S&H. Each publication contains 40+ buildings designed specifically to fit the limited space typically available on a model railroad layout.



Division Business Car

the NMRA
@home

[illegible]

Welcome to the first Division Business Car Column for 2015 and also first opportunity to wish everyone a Happy New Year. Chances are some of you may be reading this column for the first time. That's probably because some thoughtful family got you an NMRA membership with a subscription to the *NMRA Magazine* back in December. So for the benefit of you newcomers and as a review for long time readers, let me tell you what this column is all about.

For the most part, Division Business Car is all about the NMRA at the local level. As a new member, you probably know that you are also automatically a member of the "local chapter" of the NMRA nearest you. We call them Divisions because many real railroads call their smaller operating units a division. So it follows that this column is mostly about what goes on within NMRA Divisions. However, its [illegible] coverage [illegible] to include NMRA Regions. They're made up of a number of Divisions within the same geographical area, and [illegible] a number of [illegible]. In addition to Divisions and Regions, this column also covers [illegible] model railroad clubs with 100% NMRA membership. The whole purpose is to share ideas. If some Division comes up with a new idea for a program or project that would work in other Divisions, you'll read about it here. If a Region develops a new way to organize convention layout tours, I'll tell you about it. If a 100% NMRA Member Club comes up with a new way to fund its activities, I'll let you know so your club can try it too.

Besides Division, Region, and NMRA club activities, actual model railroading is perhaps here as well. There are many creative modelers [illegible] that can teach us [illegible] the other [illegible] hobby magazines [illegible] their ideas within [illegible] here in this column.

For the most part, all these great ideas arrive here in two ways. The first way is from articles I find in NMRA Division, Region and club publications. The second way is from readers just like you who e-mail them to me [illegible]. You'll also find that address at the top of every Division Business Car column right under my name, so don't hesitate to write. The same holds true for newsletter editors. If you aren't sending me your newsletters, please get in touch.

The bottom line is this column is all about what goes on in the NMRA close to where you live. We also call that The NMRA@HOME. Very often good ideas require a whole article to explain. That's especially more so than I can fit into this column. Rather than trying to cram them up in only a few words, [illegible] the whole article by posting it on the NMRA's Member Only website. [illegible] for a full explanation on how you can access this very valuable member benefit. There's a whole lot [illegible]. Finally, because model railroading is fun, [illegible] some laughs along the way too. So now that you know what's going on here, let's get on with it!

Free NMRA Membership

I thought that headline would grab your attention! The bad news is it's not for you because if you're reading this you're already a member. The good news is that it's a great way to recruit people who haven't joined yet, and that's important to us all. [illegible] the NMRA website and [illegible] I've talked about this idea before, but it bears repeating, so I will.

You may already be familiar with the NMRA Railpass Program. If you're one of the new readers of this column, chances are it's because you're a Railpass member. For those unfamiliar with the program, Railpass allows new members to sign up for NMRA membership on a trial basis for six months at a cost of just $19.95. For that great introductory price, you get most all membership privileges, including a six-month subscription to *The NMRA Magazine*. The only benefits a Railpass member does not receive are the right to vote or hold office and the New Member Pak (due to its expense). A pretty good deal, right? The only thing that could make it better would be if it were free, and that's exactly what the Mid-Eastern Region has done. Anyone living within the MER's geographical boundaries who has never been an NMRA member or has not been a member for the last two years may apply. If these qualifications are met, the MER pays the $19.95 Railpass fees on behalf of the new member.

We all talk about doing more to promote NMRA membership. Well the MER certainly has, and it's something other Regions and Divisions could do as well. If your Region or Division has some extra money in its treasury looking for a good place to be spent, this could be it. If you'd like to see the special application form the MER has created for their free Railpass offer, you'll find it on the Member Only Website by following the instructions in the sidebar. Oh, and one more thing. You have to actually live within the boundaries of the MER to use the form you'll find. It's only there to give you ideas on how to implement a Free Railpass Program for your own Region or Division. Could you be the person who makes this happen?

Repurposing Politics

The U.S. midterm elections are now history, and you're probably either celebrating or licking your wounds depending on the candidates you supported. Chances are there's still a pair of [illegible] political business [illegible] in your garage that [illegible] your [illegible]. I'm talking about those political signs you stuck in your front lawn during the campaign. If you haven't thrown them away yet, don't. You can reuse them — or at least a part of them. Just cut off the political plastic or paper banner material

Using the NMRA Members Only Website

[illegible]

[illegible]

[illegible]

Sharing the Weathering Wealth

[illegible]

[illegible]

[illegible]

A Kitbashed Caboose for a Contest

[illegible]

[illegible]

[illegible]

A Credible Freight Fleet on the Cheap

[illegible]

[illegible]

On the Road with the President

[illegible]

[illegible]

Above: NMRA President Charlie Getz's [illegible] presidential limo, lost on the wrong side of the tracks.

Hopefully they'll get overturned in time to teach [illegible]..."

We can only hope. After all, President Davis' limousine is not up to the standards of those used by other presidents I could name. Rumor has it his chauffeur is somewhat directionally challenged as well. The good news is that he has the better part of five months to find his way to Atlanta.

The fine folks in the restoration [illegible] Rob "Youngblood" MMR supplied the photo and the modeling scene, which [illegible] of the many that will be open for [illegible] during the National Convention, July 14-20, in Atlanta, Georgia.

There's a lot more to do at the convention besides layout tours. Take clinics for example. There will be a collection of them called "Civil War Tracks." They will spotlight the role railroads played in and around Atlanta during the Civil War. These special clinics will be presented by staff members of the Southern Museum of Civil War & Locomotive History (a Smithsonian affiliate) located nearby Kennesaw, Georgia. To complement the clinics, there'll also be a prototype tour to the museum and the historic Kennesaw Battlefield. Also on tap is another prototype all-day bus tour called "The Great Locomotive Chase." This tour will follow the entire route that Andrews's Raiders and their Confederate pursuers took after the Raiders captured the "General" locomotive and the pursuit that followed. [illegible] tour guide will narrate it.

In addition to traveling to the past, NMRA's 2013 Peachtree Express prototype tour will head straight into the future. That one goes to American Maglev Technologies in Powder Springs, another Atlanta suburb. There, visitors will get to see and ride on a prototype American-made magnetic levitation train at the company's main test facility.

Wow, there's enough time travel going on here to give Mr. Peabody and his Wayback Machine [illegible] (younger readers, please Google "Rocky & Bullwinkle" to find out what I'm talking about).

Go get on line and sign up for NMRA's 2013, The Peachtree Express. You'll find everything you need at www.nmra2013.org.

With that's [illegible], I ask [illegible] please keep an eye out for President Davis and his limo. Help him find his way if you can. Also, please find your way back here in April for more from the President's Business Car.

THE MARK V NEW & IMPROVED O SCALE GAUGE FROM NMRA

[illegible]

$9.00 NMRA members $13.00 Non-members

[illegible]

The PROTO:87 Stores

[illegible]

http://www.proto87.com

[illegible]

HIGHBALL BALLAST

• [illegible]

HIGHBALL PRODUCTS CO.

[illegible]

Need Sounds? 40 Choices, Complete Systems

[illegible]

Ridin

YOUR ALL-SCALE NEWS MONTHLY

Model Railroad News
Athearn Success Continues!

SUBSCRIBE TODAY!

Online:
www.ModelRailroadNews.com
www.WhiteRiverProductions.com
By phone:
[illegible] (toll-free)
[illegible] (worldwide)
By email:
info@WhiteRiverProductions.com
By mail:
Model Railroad News
PO Box [illegible]
[illegible] City, [illegible]

WHITERIVER PRODUCTIONS

Sign up for Athearn News

Never miss a single new Athearn release. Sign up to receive Athearn News, our email newsletter that keeps you on top of the latest products and news. Whenever something new is coming out, you'll know about it even before it's at your local hobby store, because each new announcement will appear in your inbox first. With so many exciting models on the way, make Athearn News your best source of information. Head over to **www.Athearn.com**, and you won't miss the next release.

Extra! Extra! Read All About It!
New O Scale Publication

$34.95 plus p&h

[illegible] O Scale [illegible]. Learn all you need to know about O Scale [illegible] Operations, Track & Trackplanning, Locomotives, Rolling Stock, Scenery & Structures [illegible]

[illegible] PDF [illegible]

[illegible]

Research & Test Car

Conducted by Ralph A. Fox, MMR
Manager, Standards & Conformance Department

[illegible]

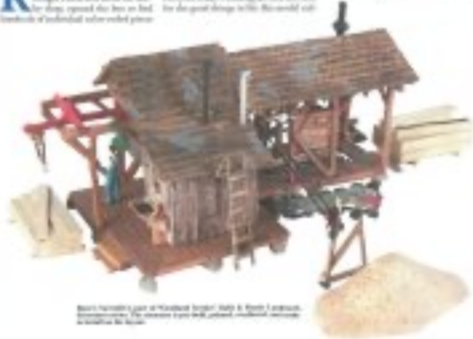
Review: Woodland Scenics Buzz's Sawmill HO Scale

Reviewed by Gary Hoover

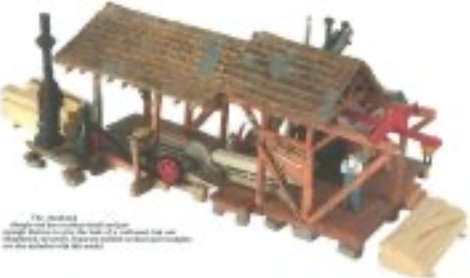
Remember the days when you bought a structure kit at the hobby shop, opened the box to find hundreds of individual color-coded pieces of unpainted, dozens of cast metal details, and an instruction sheet that would rival a [illegible]. All that would be followed by weeks of building, painting, and weathering. Well, those were, and still are, enjoyable [illegible] for many modelers, [illegible]. But let's face it, most [illegible] today [illegible] for the good things in life [illegible] world [illegible] reading. For some, spending weeks building structures just isn't their thing. Enter Woodland Scenics Landmark Structures. Here is a complete line of ready-to-place structures that are not only extremely well detailed, but also relatively inexpensive compared to similar kit structures.

I have to admit that before the Woodland Scenics Buzz's Sawmill showed up in the mail for me to review I had only casually glanced at the Built & Ready structures on the hobby shop shelf. Once I removed the review sample and examined it more closely, it became apparent that these were very nicely done structures that would blend in on even the most detailed layouts. So, let's examine the sawmill in detail.

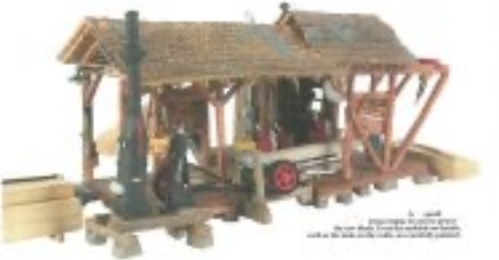
Starting at the top, the roof's molded shingles slightly overlap the fascia board to give the illusion of being separately applied. Several of the shingles have been [illegible]. Proceeding down the roofline [illegible] weathering [illegible]. As an example of the attention to detail, the small [illegible] of the [illegible] attached [illegible]. The office walls



Buzz's Sawmill is part of Woodland Scenics' Built & Ready Landmark Structures series. The structure is pre-built, painted, weathered, and ready to install on the layout.



[illegible]

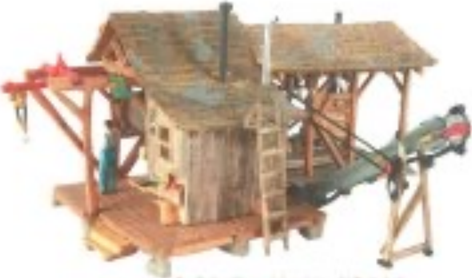


[illegible]

[illegible] mill-type construction. Like the [illegible] the walls are very nicely weathered [illegible] aged wood. The main mill [illegible] a plank floor with [illegible] The walls and the floor have been given a light wash of black to bring out the [illegible] planks. And then there's the array of small [illegible] details. Some are separately applied and some are molded in. A small [illegible] engine drives the saw blade via a pulley/belt drive. A [illegible] piece of [illegible] to be cut is mounted in a [illegible] with the [illegible] In line with the saw blade is the [illegible]

[illegible]

[illegible]



[illegible]

ers. The drive belt for the conveyor is made from [illegible] so that it is almost [illegible]. Other details include a [illegible] and hook, [illegible], [illegible] light fixtures with shades, electric motors, [illegible], [illegible], and, [illegible], a figure supervising the operation! Separate from the mill structure are two piles of different size wood and a sawdust pile. All the details are factory painted, mostly on the sides. Surprisingly, for such detailed structure it is a sufficiently solid model and can be handled normally without the fear of breaking something.

Looking carefully at the model, there was very little that I could see that needed to be added. The overall degree of weathering seemed just about right — not too much and not too little. Additional details could be a little [illegible], [illegible], and light fixtures, some dirt on the floor, and maybe a bit of [illegible] on the [illegible]. One modification I did make that may not be required by every layout was to [illegible] the model [illegible] the table. This was done by [illegible] the [illegible] and [illegible] 220-grit wet/dry sandpaper. This would certainly be an optional step since any ground [illegible] the end gaps can always be hidden with a little ground foam.

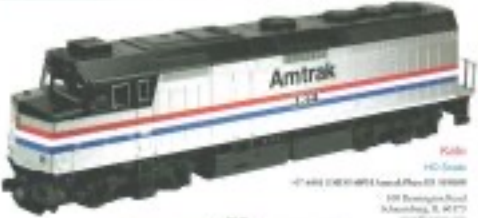
In addition to the sawmill, Woodland Scenics offers many other Built-&-Ready Landmark Structures in N, HO, and O scale. All these structures can be found at the Woodland Scenics website: www.woodlandscenics.com. The MSRP of the sawmill is $79.99. ■

[illegible]

Display Car

Product Announcements

by Todd Gillespie
[illegible]

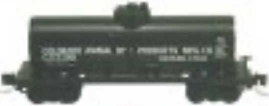


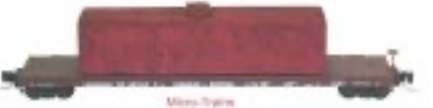
Kato

HO-Scale

#37-6491 EMD F40PH Amtrak Phase III [illegible]

100 Remington Road
Schaumburg, IL 60173
www.katousa.com





Micro-Trains

Z Scale

#[illegible] *Colorado Animal By-Product Mfg.* 39' Tank Car [illegible]
#[illegible] *Canadian National* 40' Flat Car w/ load [illegible]

351 Rogue River Parkway
Talent, OR 97540
www.micro-trains.com

[illegible]

City Classics
HO Scale
[illegible] Georgia St. [illegible] kit [illegible]

P.O. Box [illegible]
Pittsburgh, PA 15[illegible]
[illegible]

Georgia Pacific

2013 NMRA Convention Car
Manufactured by Atlas Master Line™
N Scale - Peachtree Express [illegible] Boxcar: [illegible]
HO Scale - Peachtree Express [illegible] Boxcar: [illegible]
[illegible] shipping / [illegible] pick up at convention

Peachtree Express Convention [illegible]
P.O. Box [illegible]
[illegible], GA 30[illegible]
[illegible] e-mail: [illegible]@nmra2013.org

NMRA BULLETIN

Changed your address or other membership information?

[illegible]

DEPARTMENT & PROGRAM MANAGERS

[illegible]

REGION PRESIDENTS

[illegible]

NMRA AP Certificate Report
October 2012

Golden Spike
Mid-Central Region
John Fisch, Brunswick, Ohio

Mid-Eastern Region
Douglas Algee, York, South Carolina

Master Builder — Cars
Mid-Continent Region
Don Ball, Blue Springs, Missouri

Master Builder — Structures
Mid-Central Region
Jim Kennedy, Charleston, West Virginia

Midwest Region
David Allen, Marquette, Michigan

Northeastern Region
Bob Robbins, Stony Point, New York

Master Builder — Scenery
Mid-Continent Region
Mike Fyan, Shawnee, Kansas

Mid-Central Region
John Reynolds, Cleveland, Ohio

Model Railroad Engineer — Civil
Mid-Continent Region
Mike Fyan, Shawnee, Kansas

Northeastern Region
Bob Robbins, Stony Point, New York

Pacific Northwest Region
Bruce McCosh, Boise, Idaho

Rocky Mountain Region
Mark Evans, Riverton, Utah

Model Railroad Engineer — Electrical
Mid-Continent Region
Mike Fyan, Shawnee, Kansas

Northeastern Region
Bob Robbins, Stony Point, New York

Rocky Mountain Region
Mark Evans, Riverton, Utah

Chief Dispatcher
Mid-Central Region
Brian Parsons, Huntington, West Virginia

North Central Region
William Moore, Imlay City, Michigan

Thousand Lakes Region
Richard Dodd, Sioux Falls, South Dakota

Association Official
Midwest Region
John J. Mann, Cherry Valley, Illinois

Northeastern Region
George Foote, Baldwinsville, New York

Model Railroad Author
Lone Star Region
E.J. Mitchell, Burnet, Texas

Mid-Continent Region
Robert Johnston Jr., Bryant, Missouri
Joe Hurt, Jr., Laurie, Missouri

Mid-Eastern Region
Daniel Fitzgerald, Charlottesville, Virginia

Northeastern Region
Howard Drew, Farmingville, New York

Master Model Railroader
Rocky Mountain Region
Mark Evans, Riverton, Utah

Mid-Continent Region
Don Ball, Blue Springs, Missouri

MMR GROUP: All Master Model Railroaders (MMRs) are invited to seek admission to MMRs by contacting C.J. Riley, MMR, at cjriley@yahoo.com.

AP QUESTIONS: If you have questions about the AP program or requirements, start with your local or Region AP manager. If you still have questions, contact Frank Koch at fjkoch@fuse.net.com

If you prefer to write, contact Frank at 4769 Riverwood Drive, Batavia, OH 45103.

MMRs: MMR Pins may be ordered by contacting HQ in Chattanooga.

Don't miss your opportunity to VOTE

Look inside for a ballot and return it today!

Club Car

[illegible]

Club Car

[illegible]

EVENTS

[illegible]

Model the New York Central?
Join the NYCSHS and learn
history and so much more!

[illegible]

Regular Memberships start at only $39.00* a year!

[illegible] Visit our website at [illegible] to join today!

NEW YORK CENTRAL SYSTEM HISTORICAL SOCIETY
DEPT HM • P.O. BOX 130 • GATES MILLS, OH 44040-0130

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Massachusetts, Peabody—[illegible]

[illegible]

[illegible]

Michigan, Taylor—[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Sprechen Sie Tech?

Certified Translator Needed

The Standards and Conformance Department has an urgent need for an ATA Certified Translator to convert German documents into English. This work includes translating the Leitz document describing Ratoon into an English version which will be published as RP 9.3.2.

If interested please contact:
[illegible], Manager
Standards & Conformance
Department
[illegible]

Don't miss your opportunity to

Look inside for a ballot and return it today!

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

MEMBERSHIP OPEN

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

COMMEMORATIVE CAR #3

We just did a number on our G&D® Commemorative Bobbers.

(Two new numbers, actually.)

New release of the Howell Day Museum's limited edition Gorre & Daphetid bobbers!

John Allen's treasured bobber caboose returns in two new road numbers that are true to his famous railroad.

- Two new car numbers: #3 and #5
- Available in HO scale only
- Fully assembled and ready to run
- Operating magnetic knuckle couplers
- Free-rolling metal wheels
- Pad-printed and lettering

CONFORMS TO NMRA STANDARDS

AVAILABLE FOR A LIMITED TIME!

ONE CAR.........$19.95 – [illegible]
TWO-CAR SET ...$34.95 – [illegible]
Ask about non-U.S. shipping prices. NMRA membership not required. No quantity limit.

nmra.org

[illegible]

TO ORDER: Mail to NMRA, 4121 Cromwell Road, Chattanooga, TN 37421, or visit www.nmra.org, or call 423-892-2846. U.S. funds only. Visa, MasterCard, Discover and AmEx accepted. 9.25% sales tax applied for Tennessee residents.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

HAVE 50 MODEL RAILROADING CLINICS RIGHT IN YOUR LIVING ROOM.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

nmra.org

[illegible]

NMRA Presents: Concrete in Railroad Construction

CONCRETE
in Railroad Construction
Published for the
ATLAS
Portland Cement Co.
Reprinted by the
National Model Railroad Association

- Published by The Atlas Portland Cement Company in 1909
- 300 pages, 6" x 9" format, hardcover with dust jacket
- New foreword by Tony Koester, NMRA Board member and well-known model railroading author and editor
- Over 175 black-and-white photos and illustrations
- Original preface written by Sanford E. Thompson, a civil engineer described as one of the leading concrete experts of the time
- Describes the use of concrete in numerous railroad-related applications, including bridges, piers, retaining walls, stations, tunnels, and many others

$25 NMRA members $35 Non-members

www.nmra.org or by Mail: 4121 Cromwell Road, Chattanooga, TN 37421
Phone: (423) 892-2846 Fax: (423) 899-4869

[illegible]

The NMRA® Presents An Exclusive Reprint of the 1948 Edition

LUMBER
Manufacture, Conditioning, Grading, Distribution, and Use
Nelson C. Brown

For more than a century, iron and wood have intertwined to help build the backbone of this country. Just as wooden crossties supported the expansion of tracks across North America, the railroads provided the foundation for the lumber industry's growth in its heyday. The NMRA is commemorating this proud heritage with its exclusive reprint of ***Lumber: Manufacture, Conditioning, Grading, Distribution and Use.***

Out of print since 1948, the NMRA is offering this time-honored classic originally published by John Wiley & Sons, Inc. and written by Nelson Courtlandt Brown, former Professor of Forest Utilization at the New York College of Forestry at Syracuse University. *Lumber* is the companion edition to Ralph Clement Bryant's *Logging and Lumber.*

- A 144-page, 6"×9" hardcover with dust jacket
- NEW foreword by Bob Brown, editor and publisher of *Narrow Gauge & Short Line Gazette*
- Dozens of original B&W photos and illustrations
- 11 chapters covering topics of lumber industry history and statistics, efficient methods of production, inspecting & grading, pricing & merchandising, transporting & exporting, and more

$\$25^{95}$ NMRA members

$\$35^{95}$ Non-members

Order by Web: www.nmra.org By mail: 4121 Cromwell Road, Chattanooga, TN 37421 By phone: (423) 892-2846
By fax: (423) 899-4869

U.S. Shipping: $\$5^{00}$ per book. Inquire about international delivery. All funds in U.S. dollars. V, MC, AMEX, & DISC accepted. TN residents must add 9.25% sales tax.

nmra.org

[illegible]

The best gift card you'll ever give.

(Or receive!)

[illegible]

[illegible]

[illegible]

[illegible]

www.nmra.org

NMRA Future National Conventions

[illegible]

[illegible]

[illegible]

Portland, Oregon August [illegible]

Light (and heavy) reading from the Kalmbach Memorial Library.

[illegible]

[illegible] members
[illegible] non-members

PORTER
STEAM LOCOMOTIVES

[illegible]

[illegible] members
[illegible] non-members

[illegible]

[illegible] members
[illegible] non-members

DEAN FREYTAG
SOLD OUT
STEEL

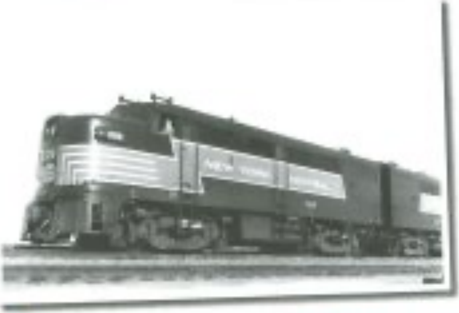
[illegible]

[illegible] members
[illegible] non-members

To Order: mail: 4121 Cromwell Road, Chattanooga, TN 37421
Phone: (423) 892-2846 • Fax: (423) 899-4869
Shipping for each: $8.95 in the U.S., $18.95 outside the U.S.
(except "Portrait Head," $15.00 outside the U.S.)
9.25% sales tax applies for TN residents.
U.S. funds only. Visa, MasterCard, American Express & Discover

History in a Click

Text by Stephen M. [illegible], MMR



American Locomotive Company in partnership with General Electric [illegible] — [illegible] Collection

The NMRA Online Archive

[illegible] NMRA [illegible] "NMRA Online Archives." [illegible]

Errations: [illegible]

National Retailers

[illegible]

ADVERTISER INDEX

[illegible]

nmra.org

HO

DCC
SOUND VALUE
ON BOARD

NEW SOUND-EQUIPPED DD40AX:

HEAR ME ROAR

[illegible]

Shipping now!

[illegible]

[illegible]